

Ramsey M. Al-Salam, Bar No. 109506  
Christina J. McCullough, Bar No. 245944  
R. Tyler Kendrick, admitted *pro hac vice*  
PERKINS COIE LLP  
1201 Third Avenue, 49th Floor  
Seattle, WA 98101  
Tel: 206.359.8000  
Fax: 206.359.9000  
RAlsalam@perkinscoie.com  
CMcCullough@perkinscoie.com  
RKendrick@perkinscoie.com

Daniel T. Shvodian, Bar No. 184576  
PERKINS COIE LLP  
3150 Porter Drive  
Palo Alto, CA 94304-1212  
Tel: 650.838.4300  
Fax: 650.737.5461  
DShvodian@perkinscoie.com

Daniel T. Keese, Bar No. 280683  
PERKINS COIE LLP  
1120 NW Couch Street, Tenth Floor  
Portland, OR 97209-4128  
Telephone: 503-727-2000  
Facsimile: 503-727-2222  
DKeese@perkinscoie.com

Attorneys for Plaintiff  
IMPINJ, INC.

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA

IMPINJ, INC., a Delaware corporation,

Plaintiff,

v.

NXP USA, INC., a Delaware corporation,

Defendant.

Case No. 4:19-cv-03161-YGR

**PLAINTIFF IMPINJ, INC.'S NOTICE OF  
MOTION AND MOTION TO PRECLUDE  
DEFENDANT AND ITS EXPERT FROM  
ASSERTING NONINFRINGEMENT OF  
U.S. PATENT NO. 9,633,302 BASED ON  
INCORRECT CLAIM CONSTRUCTIONS**

Date: November 15, 2022  
Time: 2:00 PM  
Location: Courtroom 1, 4th Floor  
Judge: Yvonne Gonzalez Rogers

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**NOTICE OF MOTION AND MOTION**

PLEASE TAKE NOTICE that Plaintiff (“Impinj”) hereby moves to preclude Defendant (“NXP”) and its expert, Dr. Subramanian, from espousing noninfringement positions at trial predicated on incorrect claim construction positions and will seek a hearing on the motion on November 15, 2022 at 2:00 p.m., or as soon thereafter as the matter may be heard, in the courtroom of the Honorable Yvonne Gonzales Rogers, United States District Court, Oakland Courthouse, 1301 Clay Street, Oakland, CA 94612, Courtroom 1 - 4th Floor Patent.

More specifically, Dr. Subramanian’s rebuttal report on noninfringement on U.S. Patent No. 9,633,302 (“the ’302 patent”) raises arguments premised on faulty constructions of the claim language, one of which was already rejected by the Court in its claim construction decision. Such expert testimony is not relevant or reliable and should be stricken. Claim construction is also an issue of law for the Court—it is improper for an expert to present claim construction arguments to the jury. The Court should preclude Dr. Subramanian and NXP from asserting any noninfringement arguments based on faulty claim interpretation. In particular, as is discussed below, the Court should strike paragraphs 302-55 and 365 from Dr. Subramanian’s rebuttal report and preclude him and NXP from presenting and relying on such testimony at trial: because he relies on faulty claim constructions and, for at least two of the terms, improperly presents claim construction arguments. This motion is based on the attached memorandum, the Declaration of Ramsey M. Al-Salam attached hereto, the pleadings and papers on file, including those connected with Impinj’s related summary judgment motion on the ’302 patent, and any other briefing or evidence presented in connection with the motion.

**MEMORANDUM OF POINTS AND AUTHORITIES**

**I. INTRODUCTION**

Impinj seeks an order precluding NXP and its expert, Dr. Subramanian, from espousing or relying on noninfringement positions for the ’302 patent that rely on faulty claim interpretations. The ’302 patent is directed to an integrated circuit (“IC”) that has antenna contacts separated by a channel that has ends that are substantially the same width, and that are substantially wider than the

width of the channel center. This channel shape is intended to facilitate the flow of fluid (i.e., adhesive) when the IC is “glued” to an antenna. Examples of channels having such shapes are set forth in Figure 13 of the patent, duplicated below:

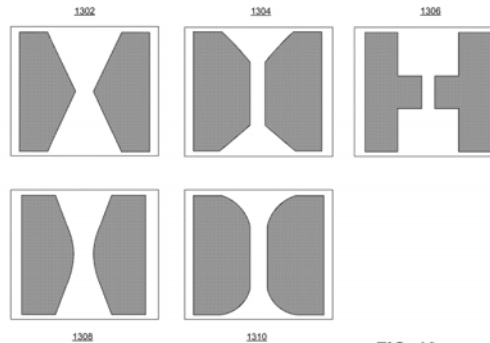


FIG. 13

There is no dispute as to the structure of NXP’s accused products. The products have a main channel (with the ends wider than the middle) bisected by a side channel, such as illustrated below with respect to the accused UCODE 9 product:



NXP and Dr. Subramanian make three noninfringement arguments in Dr. Subramanian’s rebuttal report, all of which are based on faulty claim constructions: (1) that the addition of a side channel to the NXP channel avoids infringement because it creates two channels; (2) that the NXP channel does not “separate” the antenna pads because it is not deep enough; and (3) that its channel does not, in practice, facilitate fluid flow. As to the first, the Court already rejected NXP’s argument in claim construction, when it held that the claimed channel was not required to have “continuous sidewalls” (i.e., meaning it could have side channels). The ordinary meaning of “channel” does not require that it end simply because it has a tributary or side channel. As to the second, the patent makes clear that the channel only needs to be deep enough to separate the upper contact layer of the pads; it does not need to reach into the underlying repassivation layer. Third, the “facilitate fluid flow” clause at the end of the claim is a statement of purpose of the claimed IC structure; it is not a substantive limitation to the claims that can be relied upon for noninfringement. In addition,

Dr. Subramanian's arguments with respect to 1 and 2 above are both premised on claim construction arguments made by Dr. Subramanian, which is improper because experts are not allowed to present claim construction arguments to the jury.

## II. RELEVANT FACTS

### A. Background

Impinj sued NXP for infringing multiple of Impinj's patents relating to ICs for Radio Frequency Identification ("RFID") technology, including for infringing claims 1, 3, 4 and 7 of the '302 patent. The '302 patent is directed to an IC for an RFID tag, where the IC has antenna contact pads separated by a channel. '302 patent, Abstract. The '302 Patent focuses on the shape of the "channel" separating the contact pads. The channel has a smaller cross-section at its center than at its ends, which facilitates the flow of a fluid adhesive from the channel center to the channel ends. *Id.* For example, the patent explains that an IC can be attached to an RFID inlay or strap having an antenna using a fluid adhesive applied between the IC and the inlay or strap. *Id.* at 4:52–56, 15:61–16:20. When the IC is pressed onto the inlay or strap, the liquid adhesive may propagate from the center of the channel out to the edges of the IC. *Id.* at 16:21–29.

Claim 1 of the '302 patent recites:

A Radio Frequency Identification (RFID) integrated circuit (IC) comprising:  
 an IC substrate;  
 a first antenna contact disposed on, and confined within a perimeter of, a surface of the IC substrate; and  
 a second antenna contact disposed on, and confined within the perimeter of, the surface of the IC substrate; wherein:  
 the first and second antenna contacts are separated by a channel having a first end, a second end opposite the first end, and a center between the first end and the second end;  
 the channel spans a majority of a width of the IC substrate;  
 a first transverse channel cross-section at the first end is substantially the same size as a second transverse channel cross-section at the second end and substantially larger than a third transverse channel cross-section at the center; and

the channel is shaped to facilitate a fluid flow from the center to the first and second ends.

**B. Claim Construction of the '302 Patent**

In accordance with Patent L.R. 4, the parties sought to construe five terms of the '302 patent and agreed on the construction of a sixth. *See* ECF 79, 79-1. One of the disputed terms was “channel” (claims 1, 3, 4). Impinj proposed that the term’s plain and ordinary meaning (such as is used for the “English Channel”) is “a course or passage through which something may be moved or directed,” while NXP advocated for a narrow construction of “channel” to be a “passage with continuous side walls for directed fluid flow.” *Id.* The crux of the dispute was whether a channel must have unbroken, i.e., continuous, side walls, which is the position NXP advocated for because the channel in its accused ICs has an intersecting channel. *See* ECF 77 [Impinj’s Claim Construction Br.] at 14-15; *see also* ECF 78 [NXP’s Claim Construction Br.] at 12 (“if the sidewalls could be discontinuous as Impinj contends, e.g., by having a large gap in the middle, the directed fluid flow would no longer be facilitated as required by all of the independent claims.”).

To support its narrow construction, NXP argued “the specification consistently shows continuous side walls” and “if the side walls were discontinuous—for example, if there was a hole in the middle—fluid flow would not be facilitated, and the purpose of the invention would not be achieved.” ECF 102 at 8. In its briefing, NXP repeatedly argued “all the relevant figures from the patent show channels with continuous side walls (see, e.g., Figures 9–13, reproduced below), and no description in the specification or figure discloses otherwise.” ECF 78 at 13; *see also id.* at 11 (“Every channel claimed and disclosed in the '302 Patent has continuous side walls...”); *id.* (“There is no written description or figure in the patent that discloses a channel with discontinuous side walls.”). As part of its argument, NXP reproduced in its briefing all the figures from the '302 patent that it referred to as having “continuous side walls,” including 1306 of Fig. 13:



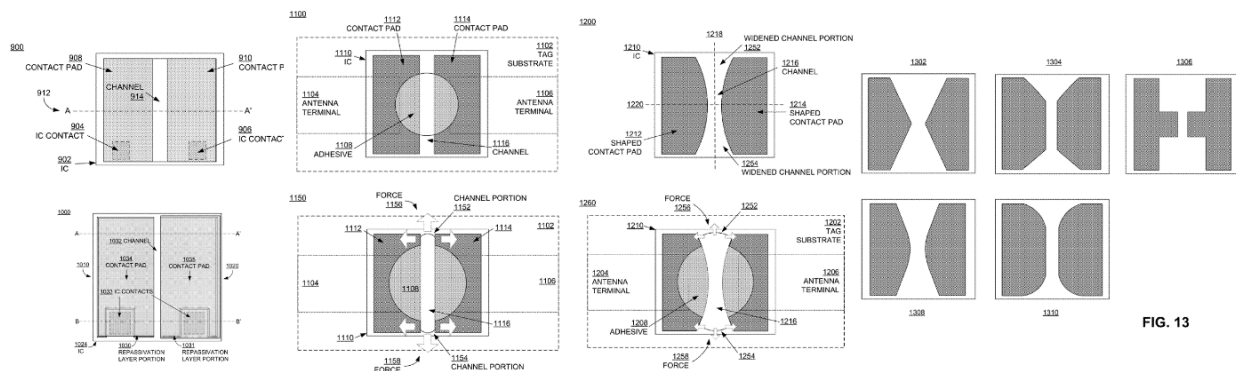


FIG. 13

*Id.*

Dr. Vivek Subramanian, a technical expert for NXP, also submitted a declaration in support of NXP's proposed claim construction, where he advocated the same positions. *See* ECF 78-2, ¶¶ 89-93; *see also id.* ¶ 93 (referring to Fig. 13 as supporting his arguments).

Impinj, on the other hand, argued that “nothing in the patent specification requires a channel with continuous, unbroken side walls” and “[i]ndeed, having intersecting channels is consistent with the purpose because it can provide additional fluid flow to reduce the risk of misalignment caused by the adhesive shifting the IC in relation to the tag as the IC is pressed onto the tag/adhesive.” ECF 77 at 15. Impinj also pointed out that the ordinary meaning of “channel” did not preclude a channel from having tributaries or side channels. *Id.*

The Court acknowledged that “NXP is correct that embodiments in the specification have continuous sidewalls,” but rejected the argument that the claims should be limited to those embodiments:

NXP does not persuade. Just because it is possible to create a channel that does not work for the stated purpose does not mean that all such variations must be excluded. For example, an hourglass-shaped channel with discontinuous walls or intersecting channels at the ends (similar to Figures 1306 or 1310) would facilitate fluid flow. (See Dkt. No. 77-2 (“Thompson Decl.”) ¶ 75 (fluid flow can be accomplished without continuous side walls).) Thus, NXP has not shown that continuous sidewalls are required by the invention. Although NXP is correct that embodiments in the specification have continuous sidewalls, that alone does not warrant importing limitations into the claims.

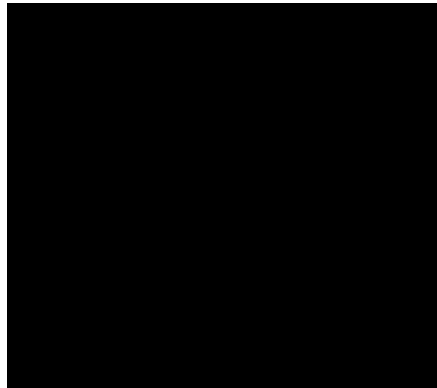
ECF 102 at 8.

1 The Court thus construed the term “channel” to have its plain and ordinary meaning, which  
2 it held “is consistent with Impinj’s interpretation.” *Id.*

3 **C. Dr. Subramanian’s Expert Report Presents and Relies on Faulty Claim**  
4 **Construction Positions**

5 Impinj served its opening expert report regarding infringement of the ’302 patent on June  
6 17, 2022, and NXP served a rebuttal expert report on August 15, 2022.

7 Dr. Scott E. Thompson, Impinj’s technical expert, submitted a report regarding  
8 infringement of the ’302 patent. Al-Salam Ex. A (“Thompson Rep.”). In that report, Dr. Thompson  
9 identified a channel in the accused products that separates the accused antenna contacts, RF1 and  
10 RF2, by indicating the first end, the center and second end of the channel, such as follows for the  
11 accused UCODE 9 product:



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13  
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17 Thompson Rep. ¶ 279; *see also id.* ¶ 277 (UCODE 7), ¶ 278 (UCODE 8).

18 Dr. Subramanian, the same expert used by NXP for claim construction, served a rebuttal  
19 expert report regarding noninfringement of the ’302 patent. Al-Salam Ex. B (“Subramanian Rep.”).  
20 Dr. Subramanian’s report, however, presents noninfringement positions based on three improper  
21 claim constructions:

22 (1) In paragraphs 319-30 of his report, Dr. Subramanian opines that the accused “channel  
23 is actually two separate and distinct channels” (Subramanian Rep. ¶ 325), such as illustrated below,  
24 with blue and green allegedly representing two distinct channels, rather than a single channel that  
25 spans the entire IC:  
26  
27  
28

1 [REDACTED]

2 [REDACTED]

3 [REDACTED]

4 [REDACTED]

5 [REDACTED]

6 [REDACTED]

7 [REDACTED]

8 [REDACTED]

9 *Id.* ¶ 322. Dr. Subramanian purports to base his “separate and distinct” opinion on the Court’s

10 “plain and ordinary meaning” construction for the term “channel”:

11 [REDACTED]

12 [REDACTED]

13 [REDACTED]

14 [REDACTED]

15 [REDACTED]

16 [REDACTED]

17 *Id.* ¶ 325; *see also id.* ¶¶ 319-24. To further illustrate his construction of “channel,” Dr.

18 Subramanian then contrasts the accused channel with an example figure from the ’302 patent

19 specification that he contends is a channel “with *discontinuous* walls,” citing Fig. 13 at 1306, which

20 NXP previously presented to the Court during claim construction as illustrating “*continuous* side

21 walls”:

1 [REDACTED]  
2 [REDACTED]  
3 [REDACTED]  
4 [REDACTED]  
5 [REDACTED]  
6 [REDACTED]  
7 [REDACTED]  
8 *Id.* ¶¶ 326-27 (annotations added by Dr. Subramanian); *see also id.* ¶ 328.

9 During his deposition, Dr. Subramanian repeatedly confirmed that it is his opinion that 1306  
10 illustrates “discontinuous walls.” *See* Al-Salam Ex. C at 385:7-8 [REDACTED]

11 [REDACTED] *id.* at 387:24-388:4 [REDACTED]  
12 [REDACTED]  
13 [REDACTED]  
14 [REDACTED] *id.* 388:21-24; 394:16-20.

15 Dr. Subramanian sets forth and relies on this “separate and distinct” channels claim  
16 construction argument to support his noninfringement positions in the following paragraphs of his  
17 report: ¶¶ 319-30 (element 1[d]), ¶¶ 331-33 (element 1[e]), ¶¶ 334-38 (element 1[f]), ¶¶ 342-44,  
18 354 (element 1[g]), ¶ 365 (claim 3).

19 (2) In paragraphs 302-18 of his report, Dr. Subramanian opines that claim 1 is not infringed  
20 because the accused “first and second antenna contacts . . . are not ‘separated by a channel.’” *Id.* ¶  
21 302. In essence, Dr. Subramanian’s position is that the channel must be deep enough to divide the  
22 repassivation layer/polymide spacer that is under the antenna contacts. *See, e.g., id.* ¶¶ 315, 317.  
23 Dr. Subramanian illustrates this concept with respect to the accused UCODE 8 IC as follows:  
24  
25  
26  
27  
28

1 [REDACTED]  
2 [REDACTED]  
3 [REDACTED]  
4 [REDACTED]  
5 [REDACTED]  
6 [REDACTED]  
7 *Id.* ¶ 309.

8 Dr. Subramanian bases this opinion on a proposed construction of the term “separated by,”  
9 a term that was not construed by the Court, which he contends excludes the concept of what he  
10 refers to as being “partially” separated by:

11 [REDACTED]  
12 [REDACTED]  
13 [REDACTED]  
14 [REDACTED]  
15 [REDACTED]  
16 [REDACTED]  
17 [REDACTED]  
18 [REDACTED]  
19 [REDACTED]

20 [REDACTED]  
21 [REDACTED]  
22 [REDACTED]  
23 [REDACTED]  
24 [REDACTED]

25 *Id.* ¶¶ 315, 317 (emphasis in original).

26 Dr. Subramanian resorts to the ’302 patent specification to argue why the meaning of  
27 “separated by” excludes “partial” separation:  
28

1 [REDACTED]  
2 [REDACTED]  
3 [REDACTED]  
4 [REDACTED]  
5 [REDACTED]  
6 [REDACTED]  
7 [REDACTED]  
8 *Id.* ¶ 316.

9 (3) In paragraphs 339-55 of his report, Dr. Subramanian opines that claim 1 is not infringed  
10 because the accused channel does not “facilitate a fluid flow,” which is recited in the last clause of  
11 claim 1 (“the channel is shaped to facilitate a fluid flow from the center to the first and second  
12 ends”). *See id.* ¶¶ 339-55.

13 As is discussed below, these opinions expressed by Dr. Subramanian are faulty because  
14 they are premised on faulty claim construction positions. And, for at least two of the positions, Dr.  
15 Subramanian is presenting arguments for how the claim should be construed, which is improper  
16 because claim construction is an issue of law for the Court, and experts are not allowed to present  
17 such arguments to a jury. Thus, the Court should strike these opinions from his expert report and  
18 exclude him or NXP from presenting them at trial.

### 19 **III. LEGAL STANDARD**

20 Federal Rule of Evidence 702 allows a qualified expert to provide opinion testimony where  
21 “(a) the expert’s scientific, technical, or other specialized knowledge will help the trier of fact to  
22 understand the evidence or to determine a fact in issue; (b) the testimony is based on sufficient facts  
23 or data; (c) the testimony is the product of reliable principles and methods; and (d) the expert has  
24 reliably applied the principles and methods to the facts of the case.” Fed.R.Evid. 702. Under  
25 *Daubert*, expert testimony is admissible under Rule 702 “if it is both relevant and reliable.” *Cooper*  
26 *v. Brown*, 510 F.3d 870, 942 (9th Cir. 2007). To determine the reliability of an expert’s opinion  
27 testimony, the district court must assess whether the reasoning or methodology underlying the  
28

1 expert's proposed testimony is scientifically valid and whether that reasoning or methodology  
2 properly can be applied to the facts in issue. *Daubert v. Merrell Down Pharm., Inc.*, 509 U.S. 579,  
3 592-93 (1993). A party seeking to introduce the testimony bears the burden of proving its  
4 admissibility. *Lust By & Through Lust v. Merrell Dow Pharm., Inc.*, 89 F.3d 594, 598 (9th Cir.  
5 1996).

6 Expert opinions "based on an impermissible claim construction" are improper and should  
7 be excluded by the Court. See *Liquid Dynamics Corp. v. Vaughan Co.*, 449 F.3d 1209, 1224 n.2  
8 (Fed. Cir. 2006) (affirming district court's decision to "exclud[e] ... expert opinion evidence as  
9 irrelevant because it was based on an impermissible claim construction"); *France Telecom S.A. v.*  
10 *Marvell Semiconductor Inc.*, No. 12-cv-04967-WHO, 2014 WL 4272771, at \*4 (N.D. Cal. Aug.  
11 28, 2014) (excluding testimony of plaintiff's expert because it was "based on [plaintiffs] rejected  
12 construction of 'systematic convolutional coding'"); *Regents of Univ. of Cal. v. Micro*  
13 *Therapeutics, Inc.*, No. 03-cv-05669-JW, 2007 WL 2429412, at \*3 (N.D. Cal. Aug. 23, 2007)  
14 (striking portion of expert report that "does not comply with the Court's construction of the phrase  
15 'predetermined time period'").

16 "Because claim construction is a matter of law to be decided by the court, expert witnesses  
17 are not permitted to argue claim constructions to the jury." *Huawei Tech., Co, Ltd v. Samsung Elec.*  
18 *Co, Ltd.*, 340 F. Supp. 3d 934, 949 (N.D. Cal. Sept. 25, 2018) (citations omitted); see also *MediaTek*  
19 *Inc. v. Freescale Semiconductor, Inc.*, No. 11-cv-05341-YGR, 2014 WL 971765, at \*4 (N.D. Cal.  
20 Mar. 5, 2014) ("Arguing claim construction to the jury is inappropriate because it risks confusion  
21 and the likelihood that a jury will render a verdict not supported by substantial evidence.") (citations  
22 omitted); *Cordis Corp. v. Boston Sci. Corp.*, 561 F.3d 1319, 1337 (Fed. Cir. 2009) ("We have held  
23 that it is improper to argue claim construction to the jury because the 'risk of confusing the jury is  
24 high when experts opine on claim construction.'") (citing *CytoLogix Corp. v. Ventana Med. Sys.,*  
25 *Inc.*, 424 F.3d 1168, 1172-73 (Fed. Cir. 2005)).

**IV. DR. SUBRAMANIAN SHOULD BE PRECLUDED FROM PRESENTING OPINIONS AT TRIAL BASED ON IMPROPER CLAIM CONSTRUCTIONS**

**A. Dr. Subramanian’s Opinion Regarding “Separate and Distinct” Channels is Based on Improper Claim Construction and Should be Excluded**

As discussed above, Dr. Subramanian opines in his report that the accused ICs do not infringe because the accused “channel is actually two separate and distinct channels.” *See* Subramanian Rep. ¶¶ 319-30. This opinion is based on an improper reconstruction of the Court’s construction of the term “channel” and contradicts the positions NXP took before the Court during claim construction.

Dr. Subramanian’s opinions regarding the term “channel” are nothing more than a transparent attempt to revive the construction that NXP already argued and lost by repackaging it another way. During claim construction, NXP argued that a “channel” must have continuous side walls. It did so because the accused channel in its ICs has a side channel. Under NXP’s contention, its ICs would have two channels, because they argue that the presence of a tributary would mark the end of one channel and the beginning of a different channel. This was the crux of the dispute, and there can be no doubt that NXP’s proposed construction used the word “continuous” to indicate a channel with unbroken side walls. The Court squarely addressed this argument when it rejected NXP’s proposed construction and construed the term to have its plain and ordinary meaning “consistent with Impinj’s interpretation.” ECF 102 at 8 (“NXP does not persuade. Just because it is possible to create a channel that does not work for the stated purpose does not mean that all such variations must be excluded.”). Now, having had its claim construction position rejected, NXP attempts through its expert to revive its rejected claim construction position by insisting that the plain and ordinary meaning of “channel” requires that the single channel accused by Impinj must actually be two separate and distinct channels. *See, e.g.*, Subramanian Rep. ¶ 325 (“The Court did not state that the plain and ordinary meaning allows two separate and distinct channels that are separated by intersecting channels at the ends of those separate and distinct channels to form a single channel.”).



1 Dr. Subramanian does this by reconstruing the Court’s claim construction holding in a  
2 disingenuous manner. In the claim construction order, the Court stated:

3 Just because it is possible to create a channel that does not work for  
4 the stated purpose does not mean that all such variations must be  
5 excluded. For example, an hourglass-shaped channel with  
6 discontinuous walls or intersecting channels at the ends (similar to  
7 Figures 1306 or 1310) would facilitate fluid flow.

8 ECF 102 at 8. Dr. Subramanian seizes on the words “discontinuous walls” from this and turns to  
9 the ’302 specification to argue that an example of what the Court means by a channel with  
10 “discontinuous wall” is disclosed by the ’302 patent’s Fig. 13 at 1306:

11  
12  
13  
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16 Subramanian Rep. ¶ 327; *see also id.* ¶ 326

17  
18  
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21 He then improperly contrasts this illustration with the accused channel in NXP’s  
22 ICs to establish what it means for a channel to have “discontinuous walls” and how the accused  
23 channel does not meet his construction. *Id.* ¶¶ 326-28. *See SRI Int’l v. Matsushita Elec. Corp. of*  
24 *Am.*, 775 F.2d 1107, 1121 (Fed. Cir. 1985) (“Infringement, literal or by equivalence, is determined  
25 by comparing an accused product not with a preferred embodiment described in the specification .  
26 . . . , but with the properly and previously construed claims in the suit.”).

27 This argument brazenly disregards the Court’s claim construction reasoning and order—  
28 that the plain and ordinary meaning of “channel” does not preclude a channel having gaps (e.g., the

English Channel). Further, it contradicts what NXP previously, and repeatedly, told the Court during claim construction: that “all the relevant figures from the patent show channels with continuous side walls . . . , and no description in the specification or figure discloses otherwise.” ECF 78 at 13; *see also id.* at 11. Indeed, NXP reproduced Fig. 1306, which Dr. Subramanian now contends shows “discontinuous walls,” in its brief as an example of a channel with continuous side walls and stated: “There is *no written description or figure* in the patent that discloses a channel *with discontinuous side walls.*” *Id.* at 11 (emphasis added).

The Court should preclude Dr. Subramanian from presenting this testimony at trial because it is inconsistent with the Court’s construction of the term “channel,” and is therefore not “relevant and reliable” testimony. *See, e.g., Huawei Techs.*, 340 F. Supp. 3d at 949 (“As for whether claim construction arguments may provide a proper basis for striking or excluding an expert's opinion, it depends whether an expert witness has opined on a claim's scope beyond the plain and ordinary meaning of a term”); *France Telecom*, 2014 WL 4272771 at \*4 (excluding testimony of plaintiff’s expert on the ground that it was “based on [plaintiffs] rejected construction of ‘systematic convolutional coding’”); *Regents of Univ. of Cal.*, 2007 WL 2429412 at \*3 (striking portion of expert report that “does not comply with the Court's construction of the phrase ‘predetermined time period’”).

Furthermore, Dr. Subramanian is clearly presenting testimony to argue claim construction, which experts are not allowed to do at trial. Such testimony would lead to substantial juror confusion. *See Cordis Corp.*, 561 F.3d at 1337 (“[I]t is improper to argue claim construction to the jury because the ‘risk of confusing the jury is high when experts opine on claim construction.’”).

Thus, for these reasons, Impinj respectfully requests the Court to strike paragraphs 319-338, 342-344, 354, and 365 of Dr. Subramanian’s report and prohibit him and NXP from presenting and relying on such arguments at trial.

**B. Dr. Subramanian’s Opinion Regarding “Separated By” is Based on an Improper Claim Construction and Should be Excluded**

As discussed above, Dr. Subramanian opines in his report that the accused ICs do not infringe because the accused “antenna contacts . . . are not ‘separated by a channel.’” Subramanian

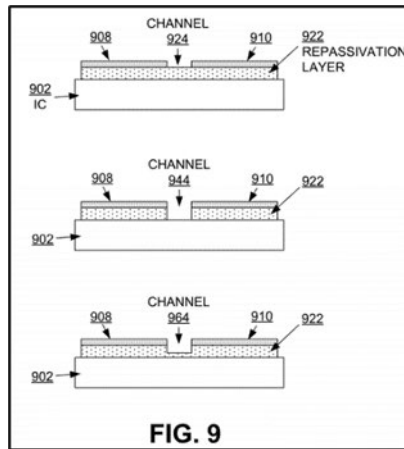
1 Rep. ¶ 302; *see also id.* ¶¶ 302-18. This opinion is based on improper constructions of the terms  
2 “separated by” and “channel” that go beyond their proper meaning.

3 The term “separated by” was not proposed for construction by either party and, in the  
4 absence of a special definition in the patent, should be accorded its plain and ordinary meaning.  
5 *Phillips v. ARW Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (*en banc*) (internal quotation marks  
6 omitted); *see also, e.g., Belden Techs. Inc. v. Superior Essex Comm'cns LP*, 733 F.Supp.2d 517,  
7 545 (D. Del. 2010) (“The parties did not seek construction of this limitation, accordingly, it must  
8 be given its ‘ordinary and customary meaning ... to a person of ordinary skill in the art in question  
9 at the time of the invention.’”) (quoting *Phillips*, 415 F.3d at 1313). Dr. Subramanian’s report,  
10 however, engages in claim construction for this term. Indeed, as discussed previously, he indicates  
11 a specific meaning for the term, which as discussed below is faulty and outside of the plain and  
12 ordinary meaning for the term, and analyzes the ’302 patent specification as purportedly “making  
13 clear” that his position is correct.

14 Dr. Subramanian’s testimony regarding “separated by” is a claim construction opinion that  
15 is inconsistent with its ordinary meaning. As discussed above, he contends that for two things to  
16 be “separated by” something else, it requires a complete separation at all identifiable layers of the  
17 things being separated. This is equivalent to arguing that a river does not separate two mountains  
18 if the mountains share an underground layer of supporting rock. Similarly, California and Arizona  
19 are “separated by” the Colorado River, even though the land beneath the river is connected. Dr.  
20 Subramanian does not apply the ordinary meaning of separate.

21 Moreover, Dr. Subramanian’s construction is contrary to the disclosure of the ’302 patent,  
22 which illustrates contact pads “separated by” a channel without limiting the depth that the channel  
23 is required to be with respect to the contact pads. For example, the patent discloses an IC may  
24 include a repassivation layer and a conducive layer (or contact pads) on top of the repassivation  
25 layer. ’302 patent at 13:13-32. The repassivation layer may cover the entire surface of the IC (*id.*  
26 at 11:41-46), while the contact pads may be electrically isolated from each other (*id.* at 10:21-35).  
27 The patent shows that the channel depth may be substantially equivalent to the height of the contact  
28

pads, and that a repassivation layer may form its bottom, such as illustrated in Fig. 9 (below) channel 924. *Id.* at 13:51-59, 16:1-4.



*Id.*, Fig. 9. As also shown in Fig. 9, the channel could also have a depth substantially equal to the height of the contact pads and part of or all of a repassivation layer, such as shown by Fig. 9 channels 944 and 964. *Id.* at 13:60-14:18. In all these cases, the patent describes each channel as separating the same thing—the contact pads. *Id.* at 14:19-30. The '302 patent does not state that one channel only separates the contact pads, while other channels separate the contact pads and portions of the repassivation layer, or that a channel is required to be of any particular depth to be considered to separate. *Id.*

The Court should preclude Dr. Subramanian from presenting his conflicting testimony at trial because it is based on his improper construction of the term “separated by” that deviates from its plain and ordinary meaning. *Huawei Techs.*, 340 F. Supp. 3d at 949 (“As for whether claim construction arguments may provide a proper basis for striking or excluding an expert's opinion, it depends whether an expert witness has opined on a claim's scope beyond the plain and ordinary meaning of a term”). Such testimony is not “relevant and reliable.”

Furthermore, Dr. Subramanian is clearly presenting testimony to argue for a claim construction position, which experts are not allowed to do at trial. Such testimony would lead to substantial juror confusion. *See Cordis Corp.*, 561 F.3d at 1337 (“[I]t is improper to argue claim construction to the jury because the ‘risk of confusing the jury is high when experts opine on claim construction.’”).

Thus, for these reasons, Impinj respectfully requests the Court to strike paragraphs 302-318 of Dr. Subramanian's report and prohibit him and NXP from presenting and relying on such arguments at trial.

**C. Dr. Subramanian's Opinion Regarding "Facilitate a Fluid Flow" is Based on an Improper Claim Construction and Should be Excluded**

As previously described, Dr. Subramanian opines in his report that the accused ICs do not infringe because the accused channel does not "facilitate a fluid flow." Subramanian Rep. ¶¶ 339-355. This opinion is based on an improper interpretation of the last clause in claim 1, that "the channel is shaped to facilitate a fluid flow from the center to the first and second ends," a clause which carries no substantive weight and is thus not a limitation.

The final clause of claim 1 is a statement of the intended purpose of the claimed channel. Claim 1 is a structural claim directed to the structure of an IC. Along with other structures of the IC, it recites a specific channel shape for the IC, where "the channel spans a majority of a width of the IC substrate" and has "a first transverse channel cross-section at the first end [that] is substantially the same size as a second transverse channel cross-section at the second end and substantially larger than a third transverse channel cross-section at the center." Claim 1 concludes by stating its intended purpose: that this channel is shaped to "facilitate a fluid flow from the center to the first and second ends."

A statement of the intended purpose of a claimed structure is not considered a substantive limitation of a claim. In *Texas Instruments Inc. v. U.S. Int'l Trade Comm'n*, 988 F.2d 1165, 1172 (Fed. Cir. 1993), the Federal Circuit held that a clause describing the fluid flow resulting from a claimed structure should not be afforded any weight in an infringement analysis. There, the claim concluded with the clause "whereby the fluid will not directly engage the device and electrical connection means at high velocity, and the conductors will be secured against appreciable displacement by the fluid." *Id.* at 1171-72. Two other claims also concluded with the clause "to preclude direct high velocity engagement between the fluid and the device and the electrical connections thereto." *Id.* The Federal Circuit held that the clauses "merely describe the result of

1 arranging the components of the claims in the manner recited in the claims” and thus “adds  
2 nothing to the patentability or substance of the claim.” *Id.* at 1172.

3 Like the *Texas Instruments* case, the last clause of claim 1 of the ‘302 patent, which is the  
4 last clause of a larger wherein clause, merely describes the result of the claimed IC structure. The  
5 ‘302 patent makes it clear that the channel having wider ends results in facilitating fluid flow.  
6 Specifically, the specification contrasts its non-convex channel design with straight channels:  
7 “[i]n contrast to channel portions 1152/1154, the larger transverse cross-sections of widened  
8 channel portions 1252/1254 may facilitate the flow of the fluid adhesive from the center out to the  
9 ends of the channel 1216 by decreasing the velocity of the propagating adhesive within widened  
10 channel portions 1252/1254.” ‘302 patent at 17:29-34. It continues that “the larger transverse  
11 cross-sections of widened channel portions 1252/1254 increase the volume of adhesive which can  
12 flow before turbulence occurs, thereby reducing the likelihood of fluid turbulence during adhesive  
13 propagation through channel 1216, facilitating fluid adhesive flow out to the channel ends, and  
14 also reducing the potential for IC movement and subsequent misalignment.” *Id.* at 17:40-47.

15 Thus, the recited “facilitate a fluid flow” language simply reiterates that the resulting  
16 purpose of the claimed structural channel shape is to facilitate fluid flow. Like in *Texas*  
17 *Instruments*, it has no meaning and is therefore irrelevant for noninfringement.

18 Accordingly, the Court should preclude Dr. Subramanian from presenting testimony at trial  
19 regarding his opinion that the accused ICs do not infringe because the accused channel does not  
20 “facilitate a fluid flow,” because he is improperly construing a term that has no substantive weight  
21 as having relevant meaning for the purposes of noninfringement. Such testimony is not “relevant  
22 and reliable.” Thus, Impinj respectfully requests the Court to strike paragraphs 339-55 of Dr.  
23 Subramanian’s report and prohibit him and NXP from presenting and relying on such arguments at  
24 trial.

## 25 **V. CONCLUSION**

26 For the foregoing reasons, Impinj respectfully requests the Court to strike the above-  
27 identified portions of Dr. Subramanian’s report and preclude him and NXP from offering and  
28 relying on arguments at trial.

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2  
3 DATED: October 11, 2022

By: /s/ Ramsey M. Al-Salam

4 Ramsey M. Al-Salam, Bar No. 109506  
5 Christina J. McCullough, Bar No. 245944  
6 R. Tyler Kendrick, admitted *pro hac vice*  
7 PERKINS COIE LLP  
8 1201 Third Avenue, 49th Floor  
9 Seattle, WA 98101  
10 Tel: 206.359.8000  
11 Fax: 206.359.9000  
12 RAlSalam@perkinscoie.com  
13 CMcCullough@perkinscoie.com  
14 RKendrick@perkinscoie.com

15 Daniel T. Shvodian, Bar No. 184576  
16 PERKINS COIE LLP  
17 3150 Porter Drive  
18 Palo Alto, CA 94304-1212  
19 Tel: 650.838.4300  
20 Fax: 650.737.5461  
21 DShvodian@perkinscoie.com

22 Daniel T. Keese, Bar No. 280683  
23 PERKINS COIE LLP  
24 1120 NW Couch Street, Tenth Floor  
25 Portland, OR 97209-4128  
26 Telephone: 503-727-2000  
27 Facsimile: 503-727-2222  
28 DKeese@perkinscoie.com

Attorneys for Plaintiff  
IMPINJ, INC.

**CERTIFICATE OF SERVICE**

The undersigned hereby certifies that a true and correct copy of the above and foregoing document has been served via U.S. District Court CM/ECF notification on October 11, 2022 to all counsel of record.

/s/ Ramsey M. Al-Salam  
Ramsey M. Al-Salam